

## ELECTROCONDUCTIVE INK PRINTED CIRCUIT ELEMENT

## ABSTRACT

Circuit Elements such as capacitors and inductors are formed from electroconductive material printed on a sheet. By printing lines in electroconductive material on both sides of a sheet, a capacitor is generated with the sheet serving as the capacitor's dielectric. If a series of parallel lines is printed at an angle with respect to a sheet and the sheet is subsequently rolled so that one end of each line engages another line to create a coil and the ends of the coil are connected across a current source, an inductor is created. The inductor can be used with another inductor to form a transformer. If two identical inductor sheets are placed one on top of the other and both are rolled to form concentric inductors, the resultant circuit element has both inductance and capacitance properties.

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